IMPORTANT

Keep this service manual to hand during the machine/ equipment's working life

SPRAYING BOOM
ECO BDM

user manual **ENGLISH**

(Translation of original instructions)

Serial number	Edition **1** **11-2006**

INDEX

SPRYING BOOM	Booklet **9**

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1 GENERAL INFORMATION

Read carefully this manual before servicing the equipment.

1.1. PURPOSE OF THE MANUAL

This manual has been drafted by the Manufacturer and it is integral part of the equipment.
This manual contains both the information relevant to the procedure of operating the equipment and the safety information.

Said information is aimed at the professional user (operator), who, in addition to a specific skill relevant to the driving of the tractor on which this equipment is fitted, must also have acquired a certain experience in the field for which this equipment has been designed and manufactured.

Furthermore, a generic mechanical experience and an agricultural mechanics skill are of the utmost importance to allow the user either to fit the equipment or to carry out adjustment and maintenance operations in safe conditions.

This manual defines the purpose for which the equipment has been designed and manufactured and contains all the information necessary to ensure a safe and correct operation.

Some important parts of the text have been highlighted and preceded by the symbols shown and defined below.

DANGER - WARNING: it shows an impending danger which might cause serious injury; give it the greatest attention.

CAUTION: it points out situations requiring a particular procedure to avoid accidents or damages to property.

Important technical information.

In pursuing a policy of constant development and updating of the product, the manufacturer might introduce changes to the equipment without any prior notice.

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1.2. MANUFACTURER'S IDENTIFICATION AND EQUIPMENT (fig. 1)

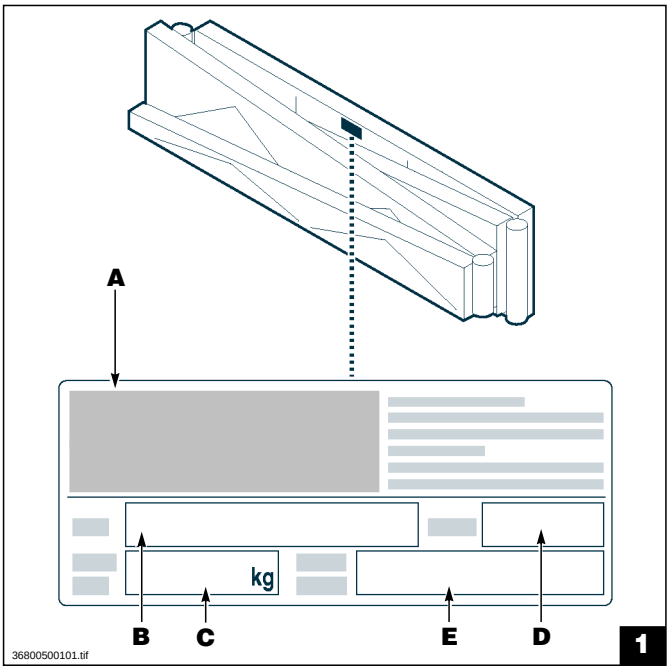
A - Manufacturer identification.

B - Model.

C - Total weight

D - Year of construction.

E - Manufacturing order number.



1.3. LIST OF THE ANNEXES ENCLOSED

More detailed information relevant to the units which can be assembled to this equipment (if fitted) is to be found in the annexes.

2 TECHNICAL INFORMATION

2.1. GENERAL DESCRIPTION OF THE SPRAYING BOOM

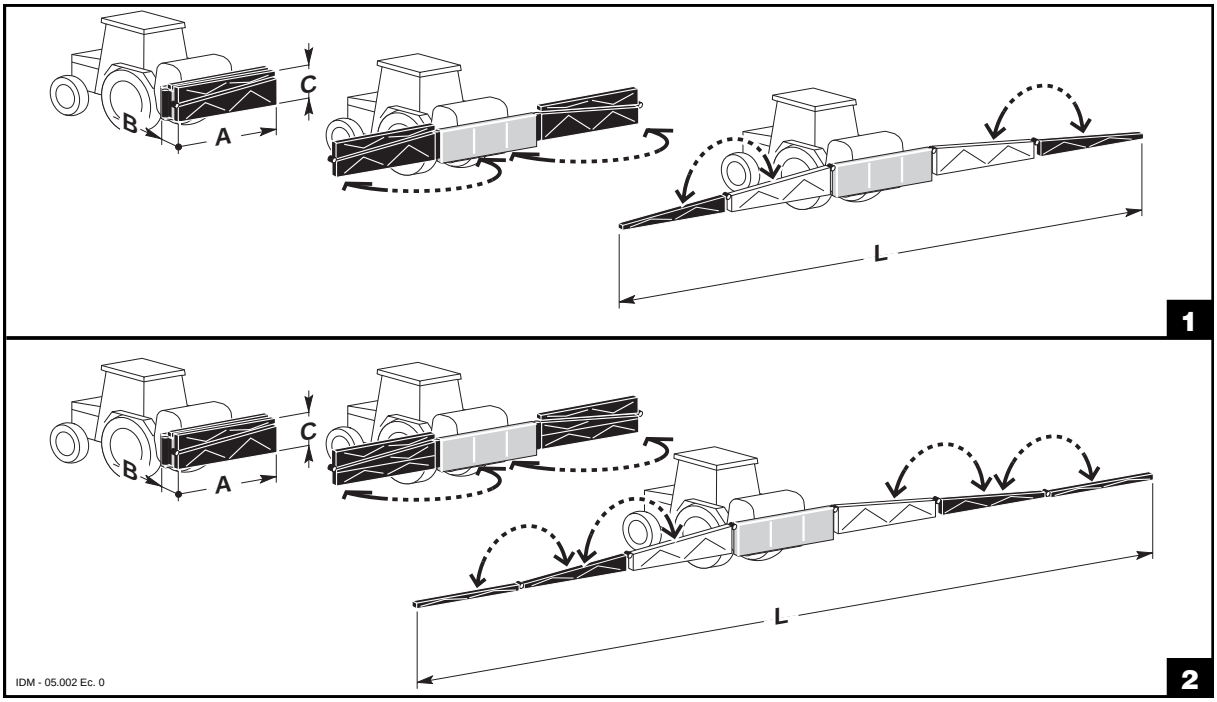
The spraying boom has been designed and manufactured for an agricultural use, more precisely to spray either the ground or the crops, through spraying nozzles.

This equipment can be directly fitted either on the height adjustment device or on the balancing device.

It is divided into more sections, which can be manually folded at the rear part, thus reducing the dimensions during the equipment transfer.

2.2. TECHNICAL SPECIFICATIONS

Width (m) L	Size			Weight (kg)	Qty. Jets (500 mm)
	A mm	B mm	C mm		
6	1980	160	360	24	12
8	1880	280	390	42	16
10	2070	280	390	48	20
12	2480	300	430	68	24
14	2210	330	680	93	28
15	2490	330	680	110	30
16	2490	330	680	110	32
18	2770	330	680	130	36

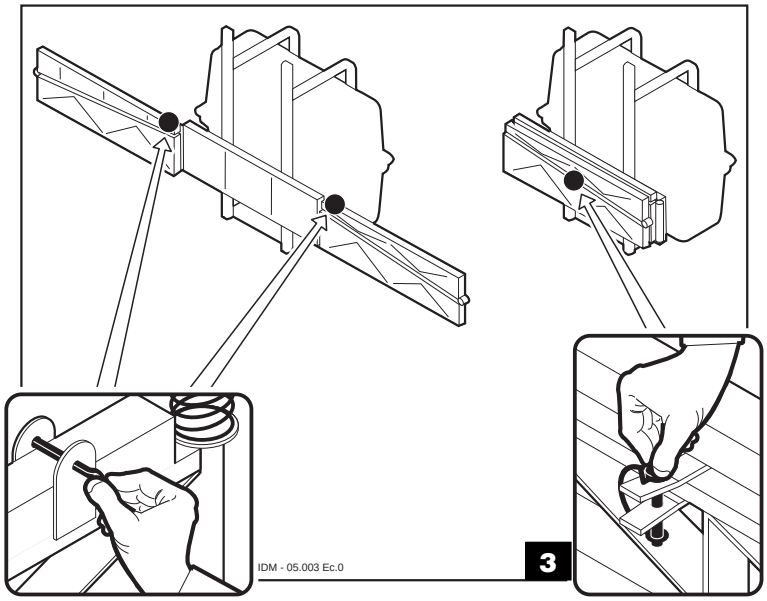


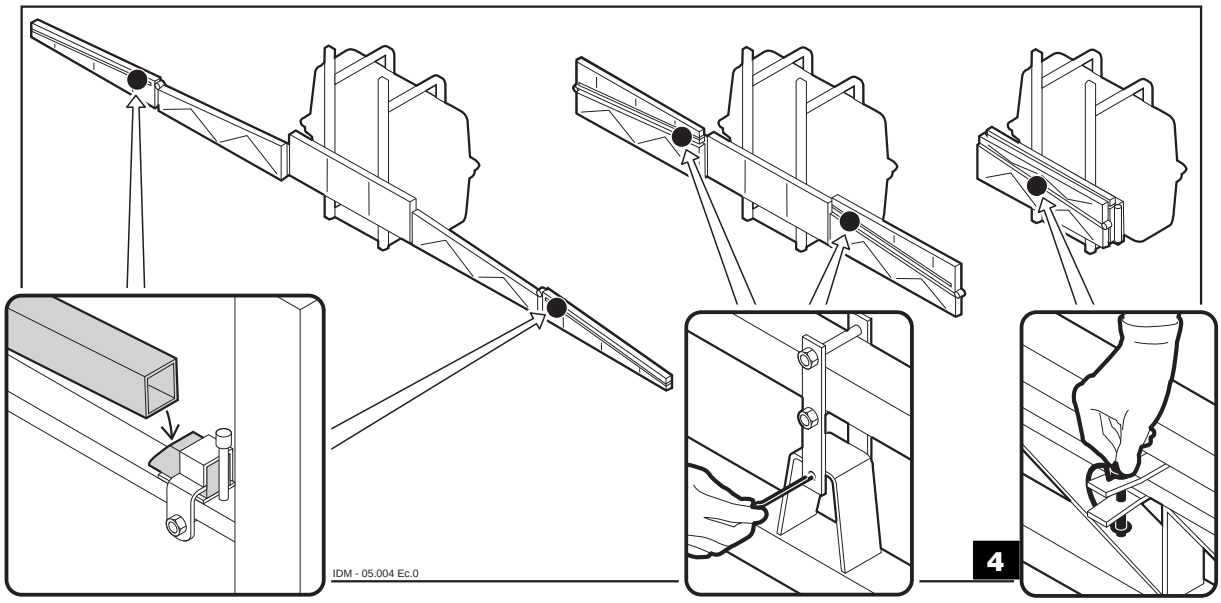
2.3. SAFETY DEVICES (fig. 3-4)

The spraying boom is supplied with locking devices preventing the accidental opening of the boom sections during the transfer or whenever working with the boom partially folded.

The safety devices change in accordance with the boom model:

– locking devices for 5-section boom (fig. 3);
– locking devices for 7-section boom (fig. 4).





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2.4. ATTACHMENTS UPON REQUEST

❑ **Complete protection kit**
It protects the nozzle bodies from breaking due to the impact with the ground or with the crops to be sprayed.

3 SAFETY INFORMATION

3.1. GENERAL SAFETY REGULATIONS

Read carefully this operation and maintenance instruction manual before carrying out any installation, starting, operation, adjustment, maintenance, etc.

- ❑ Installation, maintenance, adjustment or any other servicing must be carried out with the safety devices activated (if fitted), previously turning off the tractor and removing the ignition key.
- ❑ Non-authorised personnel shall not be allowed to carry out any repair, maintenance or other servicing operation on the equipment.
- ❑ Unscheduled maintenance and repairs must be carried out in well equipped work-shops.
- ❑ Any change introduced to the equipment must be previously authorised in writing by the manufacturer.
- ❑ Remove dangling clothes which might entangle into the **running parts**.
- ❑ As far as road circulation is concerned, the equipment must be supplied with the safety devices in compliance with the Motor Vehicle Regulation in force in the user's country.
- ❑ Should it be necessary to replace parts, always ask for **original spare parts**.

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4 HANDLING AND LOADING

4.1. TRANSPORTATION, PACKAGING AND UNPACKAGING

The equipment can be shipped:

– by road,

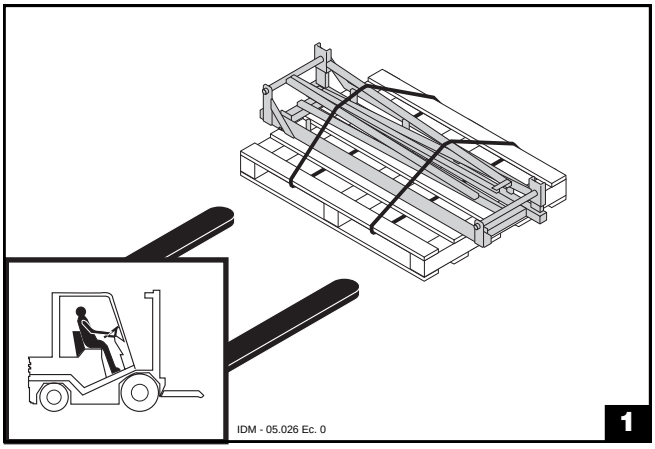
– by train,

– by ship.

The equipment is fixed to a pallet through straps and protected by thermoretractable cellophane to be removed through suitable tools before carrying out the installation.

4.2. LOADING AND UNLOADING

DANGER - WARNING: Lifting and handling operations must be carried out through suitable means and by skilled personnel.



– Use a fork lift device to be positioned as shown in figure 1.

– Slowly lift and handle the equipment avoiding any impact.

4.3. INSTALLATION OF THE DISASSEMBLED PARTS

Preamble

The spraying boom is supplied partially disassembled, since the water system must be assembled after the boom structure has been fastened to the tractor-mounted tank.

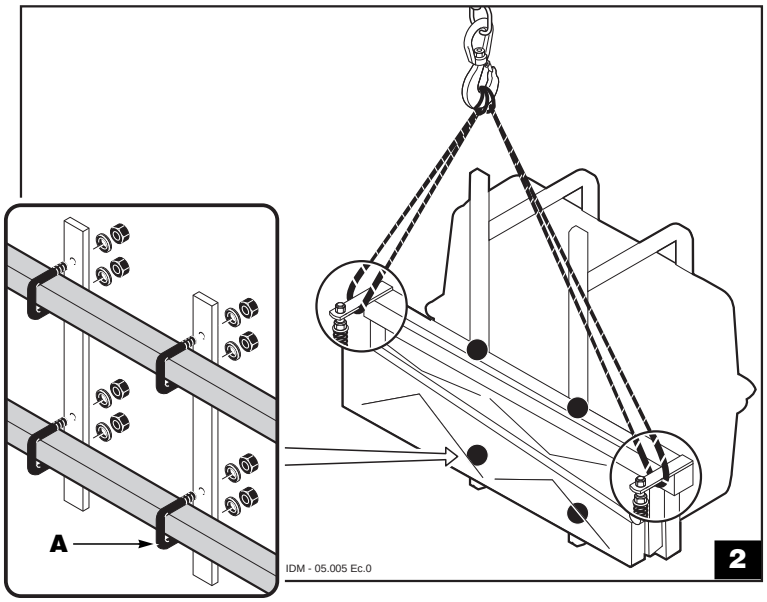
Follow the instructions below to carry out a correct installation and assembly of the spraying boom.

4.3.1 Boom structure - Installation

According to the models (annex C), the boom structure can be directly installed on the slider kit, on the slider kit supplied with spacer or on the balancing device (annex D).

Should the boom be installed on the balancing device:

– Lift the boom structure (fig. 2) and fasten it through U bolts **A**, without tightening it.



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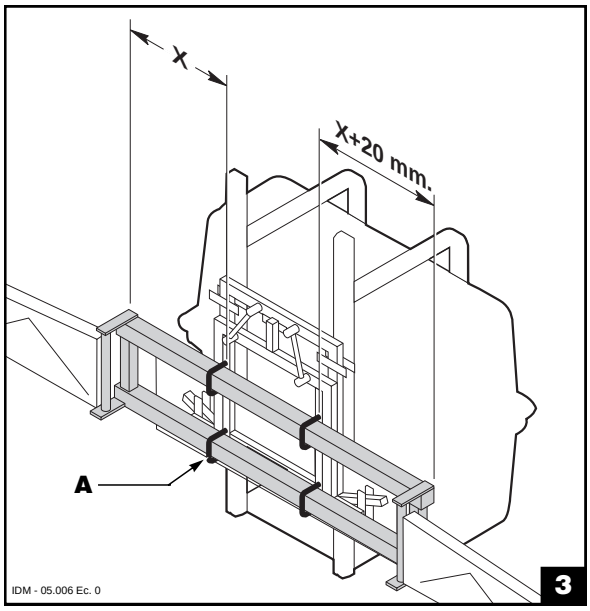
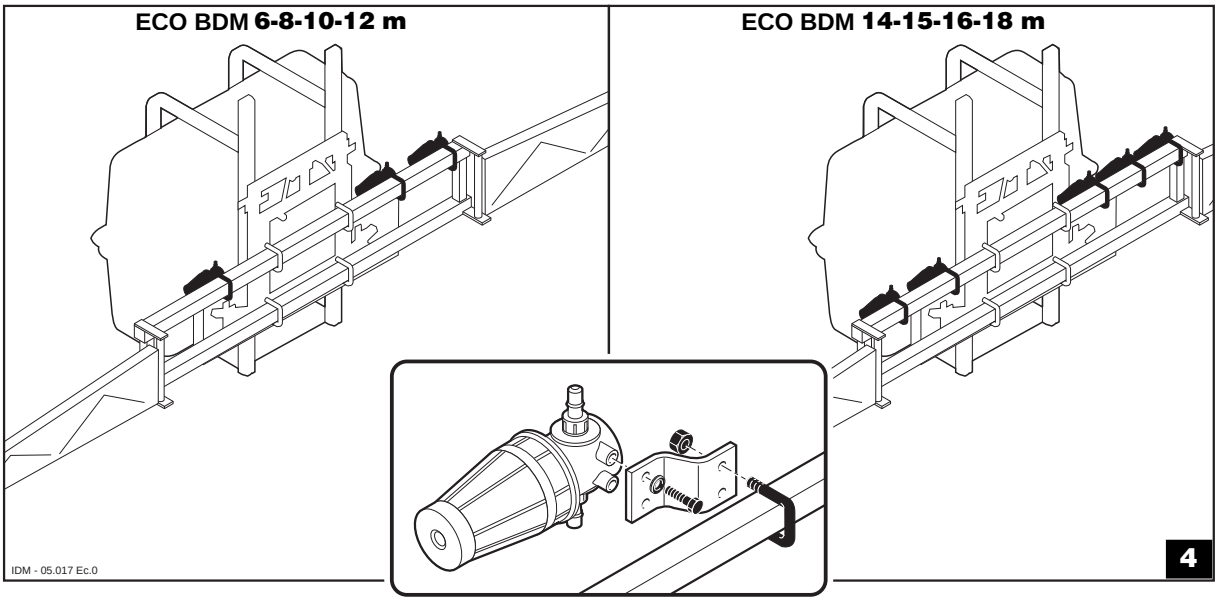
Displace the boom structure 20 mm to the right, with respect to the tank unit uprights and position it as shown in fig. 3; tighten the U bolts A nuts.

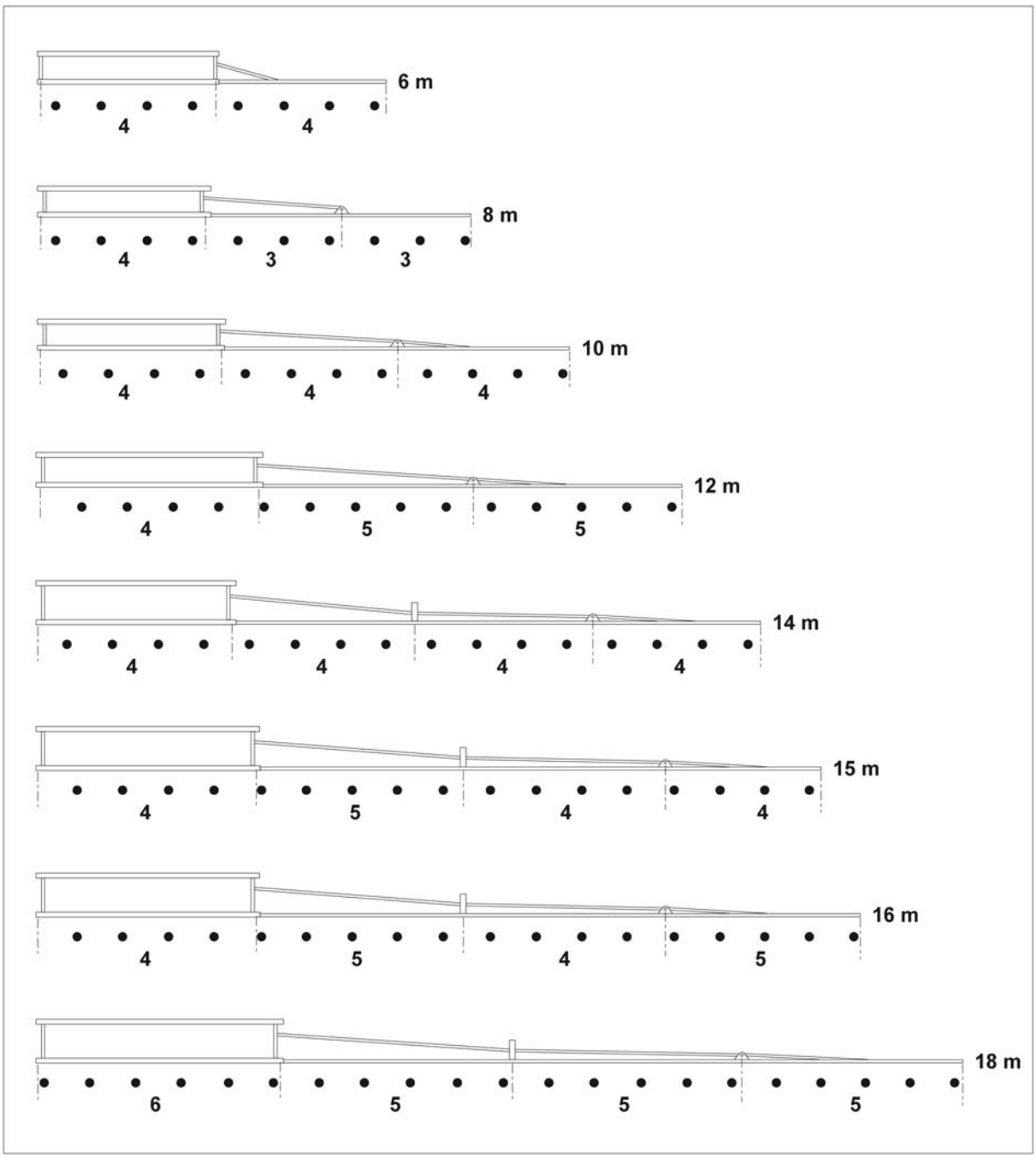


4.3.2 Water system - Installation

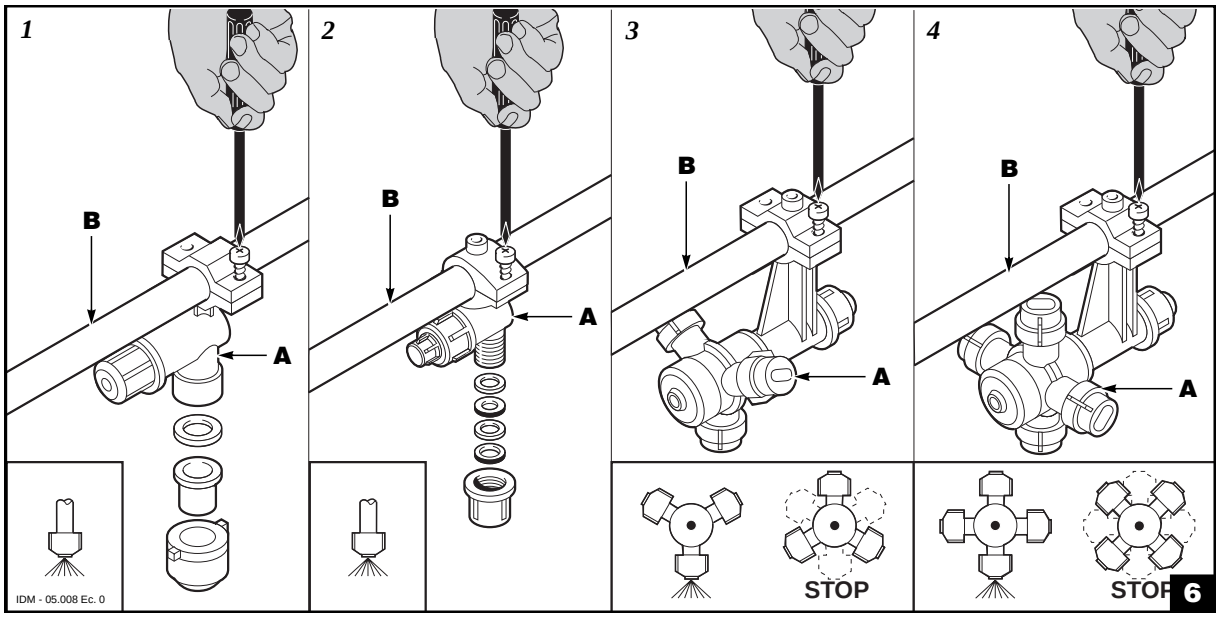
– Should the filters be supplied, fit them aligned as shown in fig. 4, making sure the arrow on the filter case is turned downwards.



– Check the assembly position of the jet nozzle bodies, according to the boom length as shown in figure 5.

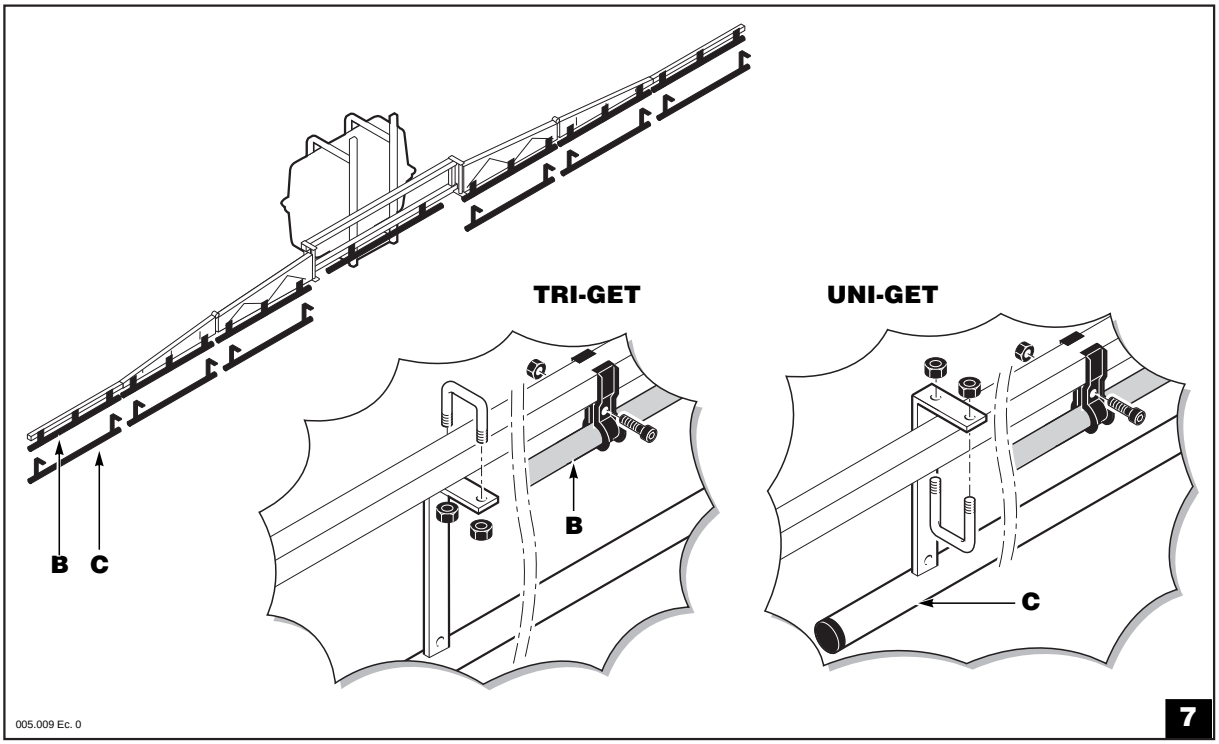


– Fit nozzle bodies **A** (fig. 6) onto pipes **B**.



***Legend**:*
***1** - Uni-jet nozzle body supplied with quick coupling;*
***2** - Uni-jet nozzle body supplied with threaded head;*
***3** - Tri-jet nozzle body supplied with quick coupling;*
***4** - Quadri-jet nozzle body supplied with quick coupling.*

– Fasten pipes **B** and protections **C** (if supplied) to the spraying boom, as shown in figure 7.



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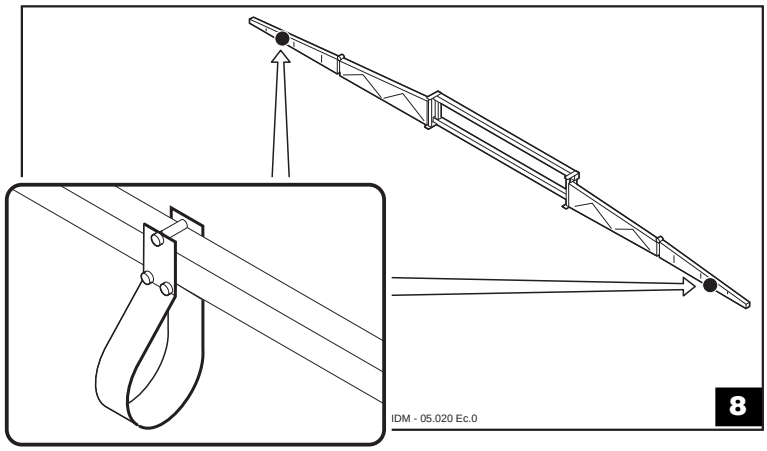
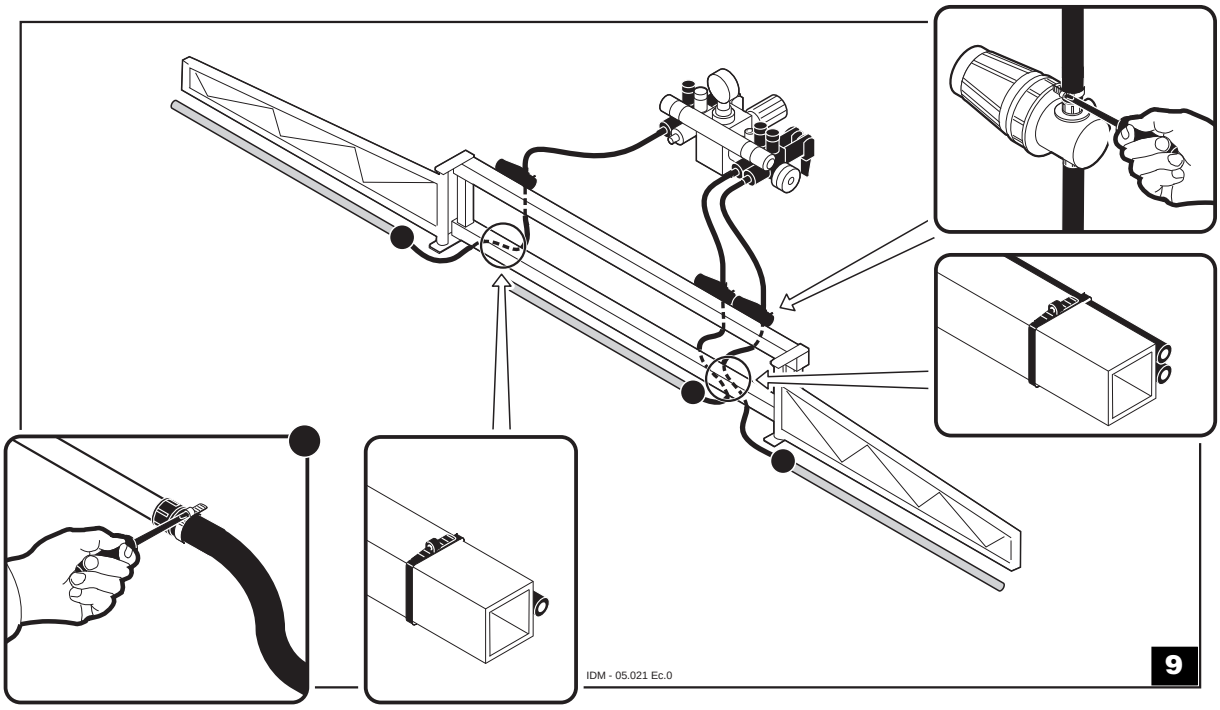
– Fit guard bands **A**, as shown in figure 8.

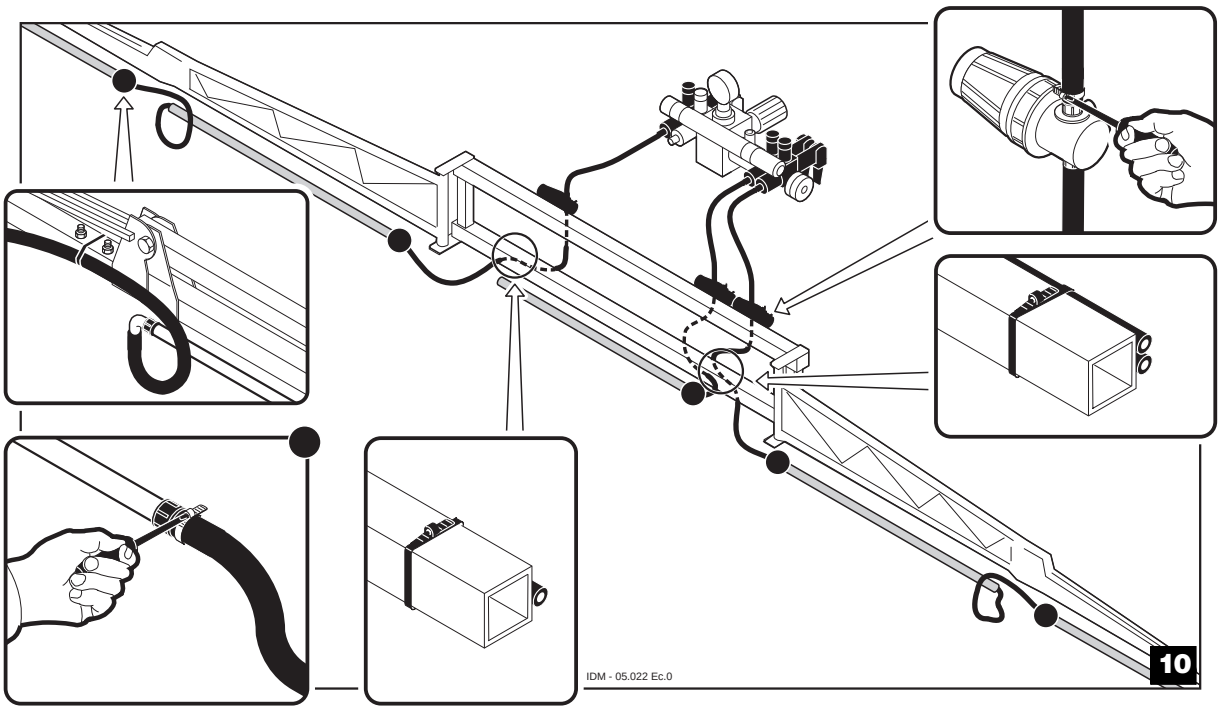


– Connect the water hoses as shown in the figures below.

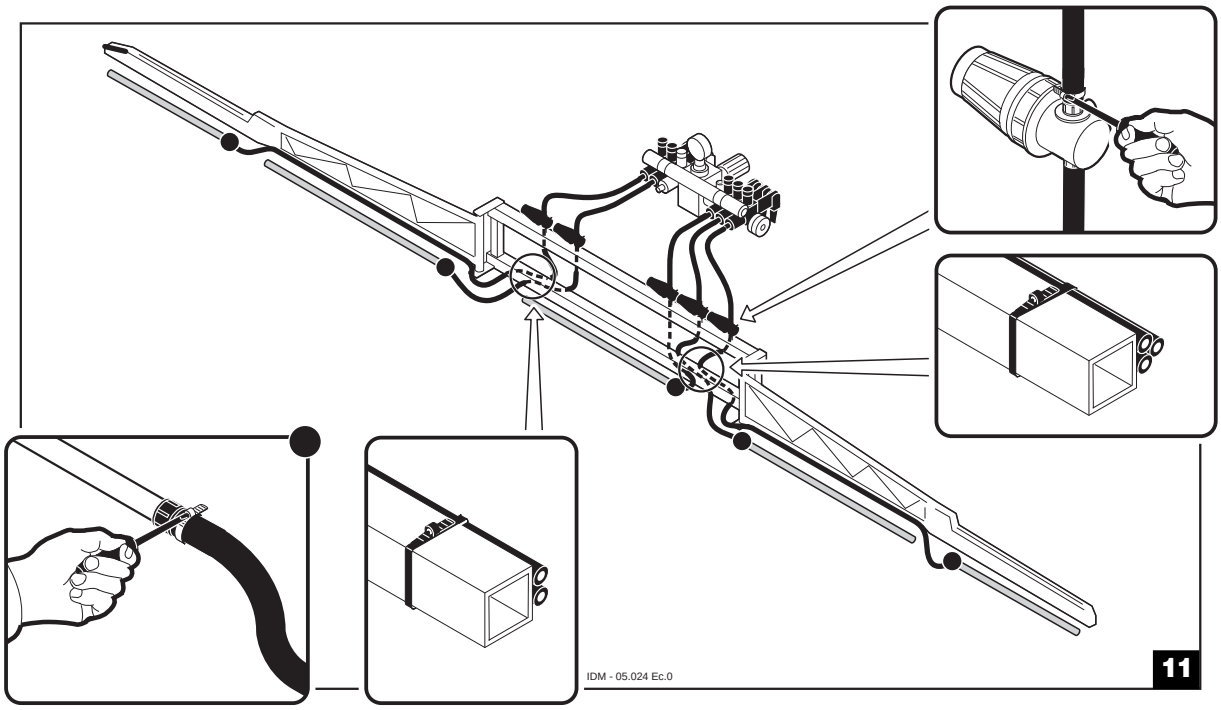
❑ **3-section spraying boom with 3 feedings** (fig. 9).



❑ **5-section spraying boom with 3 feedings** (fig. 10)



❑ **5-section spraying boom with 5 feedings** (fig. 11)



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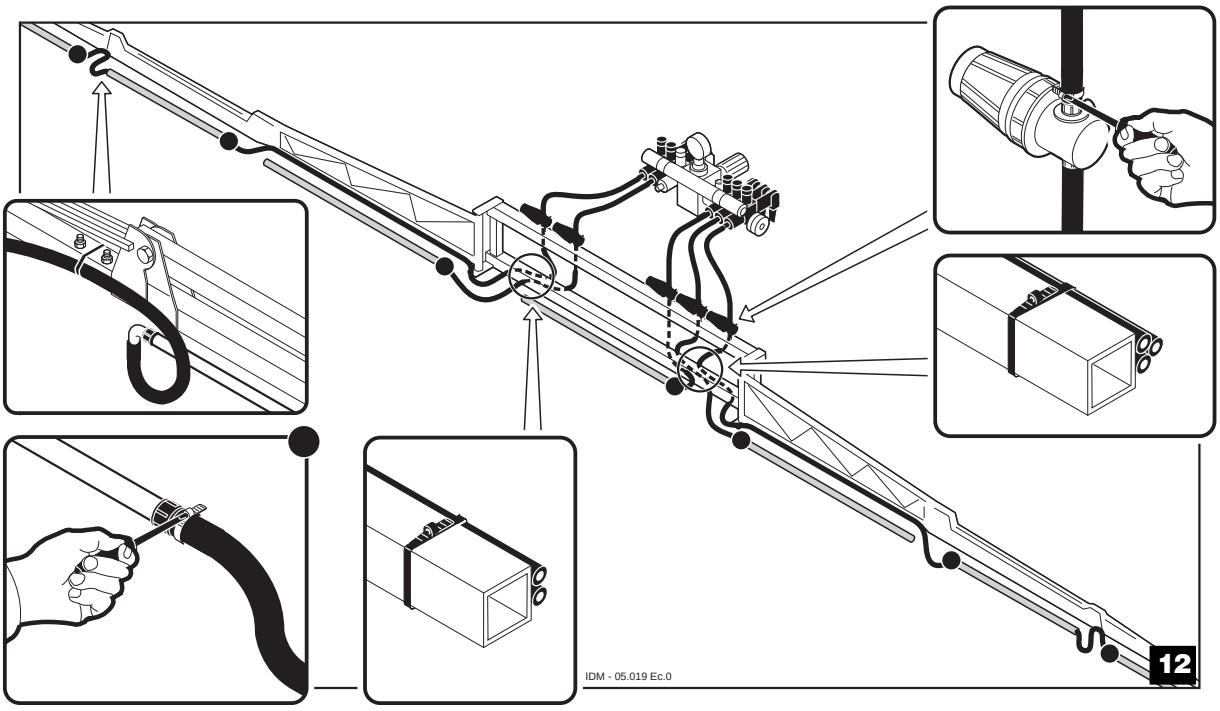
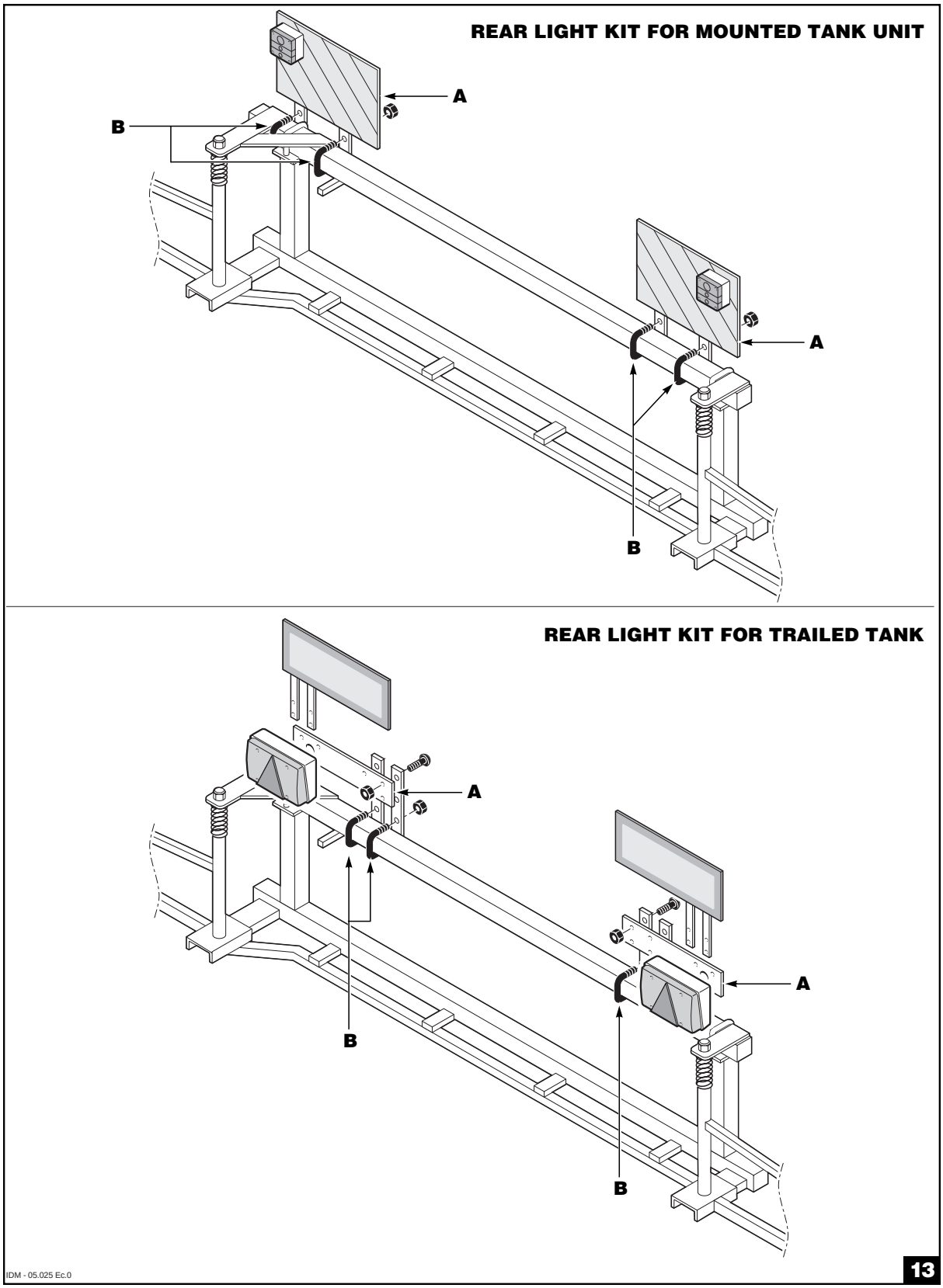
❑ **7-section spraying boom with 5 feedings** (fig. 12)



4.4. REAR LIGHTS KIT - INSTALLATION (IF FITTED)

– Position the rear lights kit **A** as shown in fig. 13, fastening it through U bolts **B**.



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6 USE AND OPERATION

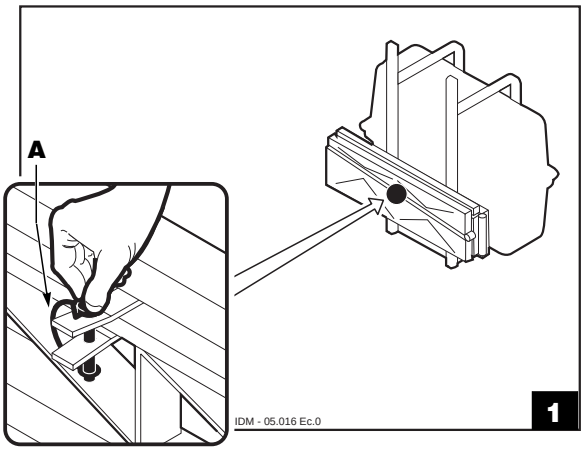
6.1. UNFOLDING AND FOLDING OF THE SPRAY BOOM

For safety purposes, carry out the following operations before unfolding and folding the boom:

– lower the tractor height adjuster;
– turn off the tractor engine, engage the parking brake, remove the ignition key, taking it away;
– Make sure that the locking device (if available) of the balancing device is engaged (see booklet **D**).

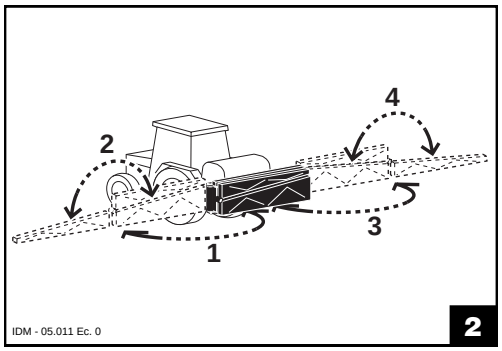
❑ **Spraying boom unfolding:**

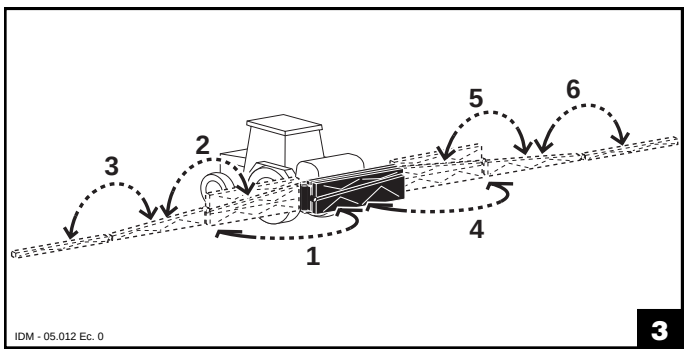
– Disengage the boom locking **A** (fig. 1)



CAUTION: the spraying boom must be gripped in those points marked by the relevant plate.

– Remove the locking devices and unfold the boom, according to the sequence shown in figure 2 (as far as 5-section booms are concerned) and figure 3 (as far as 7-section booms are concerned).





– Disengage the locking device (if available) of the balancing device (see booklet **D**).

❑ **Folding of the spraying boom**

– Carry out the above described operations in reverse order;

– fit the relevant locking devices.

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7 EQUIPMENT MAINTENANCE

A careful and constant maintenance ensures a good working and a long life of the equipment.

7.1. DAILY MAINTENANCE

– Cleaning the equipment:
at the end of each working day or whenever the equipment is stopped for a period of time exceeding one hour, rinse it, let the water flow from the nozzles (see annex A) and clean the equipment through a strong water jet.

– Nozzle body and nozzles check:
make sure nozzles are fastened to the nozzle bodies which , in their turn, must be fastened to the piping; furthermore, make also sure the antidrip valve is well tightened.
As far as threaded nozzle bodies are concerned, make sure the nozzle slot angle is turned of 5° with respect to the piping, otherwise reset the value.

7.2. ROUTINE MAINTENANCE - EVERY 40 HOURS

– Check the efficiency and tightening of the bolts.

– Retouch the damaged painted components.

7.3. UNSCHEDULED MAINTENANCE

– Nozzles cleaning:

CAUTION: always wear protective gloves.

To remove clogging from the nozzles, if any, clean them with a compressed air jet or with a soft bristle brush.

Never use sharpened or pointed tools.

7.4. WINTER STOP

Before the equipment is put away for the winter stop, carry out all the cleaning and maintenance operations, as described in § 7.1., § 7.2. and § 7.3.
If the circuits have not been protected with antifreezing fluid, empty the piping, nozzle bodies and nozzles to prevent ice from damaging the circuit components when severe temperature arises.